

AMC735

PrAMC based on CN67XX Packet Processor and/or CN68XX



AMC735

Key Features

- Cavium OCTEON CN67XX and/or CN68XX Multi-Core
- Core processors from 8 to 16 and speeds from 800 MHz to 1.5 GHz
- DDR3 with ECC memory
- Per AMC.1 and AMC.2 specification
- Single-module, mid-size (full-size option)
- Dual SFP+ socket supporting 10GbE
- PCIe Gen 2 x4 or XAUI to ports 4-7 and XAUI to ports 8-11
- RTC
- 8 MB NOR and 32 GB of NAND Flash
- Serial Over LAN (SOL) capable
- IPMI 2.0 compliant
- RoHS compliant
- OS Support for;
 - Linux
 - VxWorks

Benefits

- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

AdvancedMC™



vadatech
THE POWER OF VISION



AMC735

The AMC735 is a 10-Gigabit Ethernet (10GbE) AdvancedMC™ (AMC) module which includes an on-board line rate multi-core packet processor based on Cavium CN67XX/CN68XX CPU. VadaTech offers this product in a mid-size form factor compliant to the AMC.1 and AMC.2 specification (option full-size design, see ordering options).

The AMC735 is based around the Cavium OCTEON CN67XX/CN68XX processor which has been specifically designed to intelligently process Ethernet packets at line-rate. The number of processor cores, speed grade, and amount of DDR3 memory is customizable based on customer needs. The module has an RTC on board.

The SDK for the processor as well as additional software stacks are available from Cavium or third party. The AMC735 has Serial Over LAN (SOL) with a true hardware Random Number Generator.

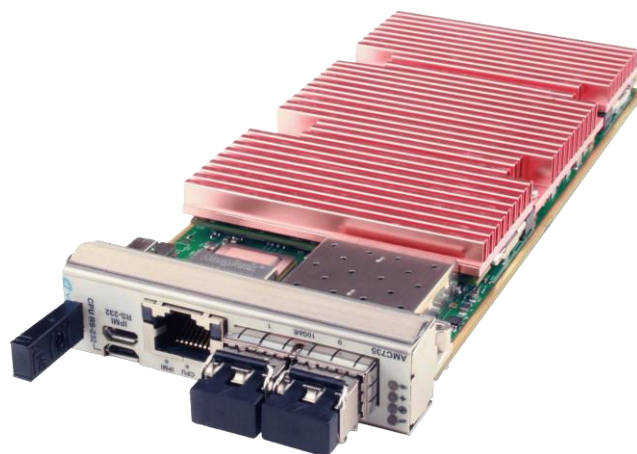


Figure 1: AMC735

Block Diagram

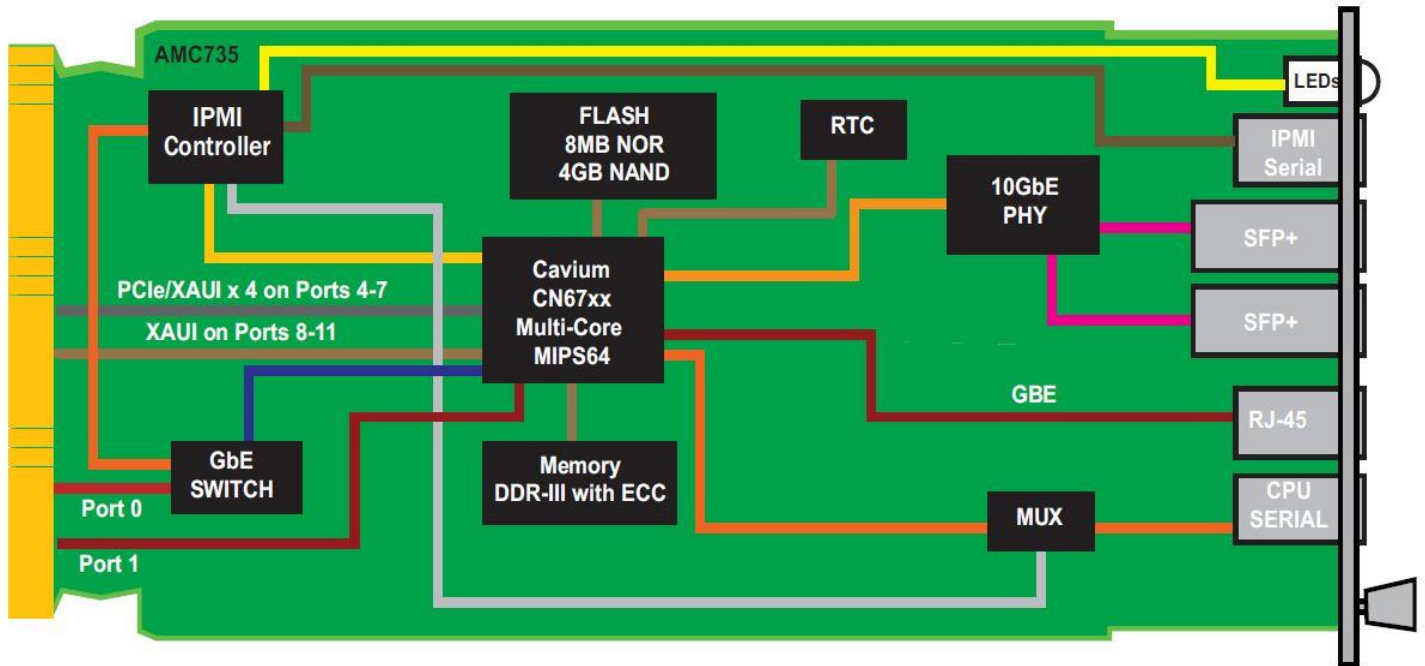


Figure 2: AMC735 Functional Block Diagram

Front Panel View

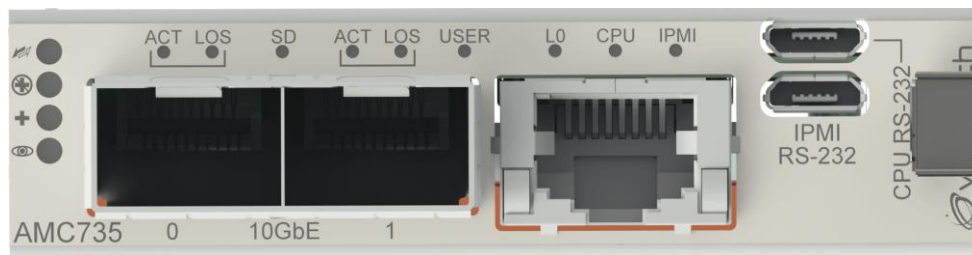


Figure 3: AMC735 Front Panel View

Specifications

Architecture		
Physical	Dimensions	Single-module, mid-size (full-size option)
		Width: 2.89" (73.5 mm)
		Depth 7.11" (180.6 mm)
Standards		
AMC	Type	AMC.1 and AMC.2
Module Management	IPMI	IPMI v2.0
XAUI/PCIe	Lanes	PCIe Gen 2 x4 or XAUI to ports 4-7 and XAUI to ports 8-11
Configuration		
Power	# of core dependent	~30 W
Environmental	Temperature	See ordering options and environmental spec sheet
		Storage Temperature: -40° to +85°C
	Vibration	1G, 5-500 Hz each axis
	Shock	30Gs each axis
	Relative Humidity	5 to 95% non-condensing
Front Panel	Interface Connectors	Dual SFP+, RJ-45
		Dual RS-232 via micro USB
	LEDs	IPMI management control
		Activity/Link and two user defined LEDs
	Mechanical	Hot swap ejector handle
Software Support	Operating System	Linux and VxWorks (consult VadaTech for other options)
Other		
MTBF	MIL Hand book 217-F@ TBD hrs	
Certifications	Designed to meet FCC, CE and UL certifications, where applicable	
Standards	VadaTech is certified to both the ISO9001:2000 and AS9100B:2004 standards	
Warranty	Two (2) years	

INTEGRATION SERVICES AND APPLICATION-READY PLATFORMS

VadaTech has a full ecosystem of OpenVPX, ATCA and MTCA products including chassis platforms, shelf managers, AMC modules, Switch and Payload Boards, Rear Transition Modules (RTMs), Power Modules, and more. The company also offers integration services as well as pre-configured Application-Ready Platforms. Please contact VadaTech Sales for more information.

Ordering Options

AMC735 – ABC-DEF-GHJ

A = CPU Cores*	D = DDR-III Memory with ECC	G = SFP+ Transceivers (second port)
0 = Reserved 1 = CN6740AAP (8 Core) 2 = CN6740CP (8 Core) 3 = CN6760AAP (16 Core)** 4 = CN6760CP (16 core) 5 = CN6880-1200BG1936-AAP-Y22-G (16 Core)**	0 = 4 GB 1 = 8 GB 2 = 16 GB	0 = None 1 = 10GBASE-SR 2 = Reserved 3 = 10GBASE-LRM 4 = 10GBASE-LR
B = CPU Speed	E = NAND Flash	H = PCIe/XAUI Port Configuration
0 = 800 MHz 1 = 1 GHz 2 = 1.2 GHz	0 = None 1 = Reserved 2 = Reserved 3 = 16 GB 4 = 32 GB	0 = XAUI 1 = PCIe on ports 4-7
C = Front Panel Size	F = SFP+ Transceivers (first port)	J = Temperature Range and Coating*
0 = Reserved 1 = Reserved 2 = Mid-size 3 = Full-size 4 = Reserved	0 = None 1 = 10GBASE-SR 2 = Reserved 3 = 10GBASE-LRM 4 = 10GBASE-LR	0 = Commercial (–5° to +55°C), No coating 1 = Commercial (–5° to +55°C), Humiseal 1A33 Polyurethane 2 = Commercial (–5° to +55°C), Humiseal 1B31 Acrylic

Notes: *AAP = Application Acceleration Processor: Includes RAID, encryption, RegEx acceleration, compression/decompression, networking, TCP acceleration, and QoS
 CP = Communication Processor: Includes networking, TCP acceleration, and QoS
 **Depending on the chassis air flow VadaTech recommends the full-height panel

Related Products

VT866



- μTCA System Platform 19" x 5U x 17"
- Full redundancy with dual MicroTCA Carrier Hub (MCH), dual Cooling Units and dual Power Modules
- Up to 12 AMCs in single width/full-size

VT855



- MicroTCA 1U 19" rack mount chassis platform
- Two mid-size AMC slots per 1U Carrier or two double module mid-size with two mid-size AMC slots
- Management can run as Shelf/MicroTCA Carrier Management Controller (MCMC) or MCMC

VT888



- Up to 6 double-width slots in 3U based on μTCA.0 R3.0
- Four μTCA.4 slots and two standard μTCA.0 and/or μTCA.1
- 3U with front to back cooling

Contact

VadaTech Corporate Office

198 N. Gibson Road, Henderson, NV 89014

Phone: +1 702 896-3337 | Fax: +1 702 896-0332

Asia Pacific Sales Office

7F-3, No16, Jihu Rd Lane 35, Neihu District, Taipei 114, Taiwan

Phone: +886-2-2627-7655 | Fax: +886-2-2627-7792

VadaTech European Sales Office

VadaTech House, Bulls Copse Road, Southampton, SO40 9LR

Phone: +44 2380 016403

info@vadatech.com | www.vadatech.com

Choose VadaTech

We are technology leaders

- First-to-market silicon
- Constant innovation
- Open systems expertise

We commit to our customers

- Partnerships power innovation
- Collaborative approach
- Mutual success

We deliver complexity

- Complete signal chain
- System management
- Configurable solutions

We manufacture in-house

- Agile production
- Accelerated deployment
- AS9100 accredited



Trademarks and Disclaimer

The VadaTech logo is a registered trademark of VadaTech, Inc. Other registered trademarks are the property of their respective owners. AdvancedTCA™ and the AdvancedMC™ logo are trademarks of the PCI Industrial Computers Manufacturers Group. All rights reserved. Specification subject to change without notice.

© 2022 VadaTech Incorporated, All rights reserved.

DOC NO. 4FM737-12 REV 01 | VERSION 1.0 – JAN/26



vadatech
THE POWER OF VISION